

10/055493

FILE 'REGISTRY' ENTERED AT 14:20:28 ON 03 FEB 2004

E PALMITATE/CN
L1 1 S E3

E PALMITIC ACID/CN
L6 1 S E3
L7 2 S L1 OR L6

FILE 'HCAPLUS' ENTERED AT 14:30:29 ON 03 FEB 2004

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON PALMITATE/CN
L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON "PALMITIC ACID"/CN
L7 2 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L6
L9 66608 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 OR PALMITATE OR
HEXADECANOATE OR PALMITIC OR HEXADECANOIC OR HEXA(W) (DECA
NOATE OR DECANOIC)
L10 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (FAT PAD(S) (?FOOT
OR FEET))

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:391493 HCAPLUS

DOCUMENT NUMBER: 136:391071

TITLE: A method for restoring a fat-pad using a mixture
of fatty acids

INVENTOR(S): Desrosiers, Eric Andre

PATENT ASSIGNEE(S): Bio Syntech Canada Inc., Can.

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2002039977 | A2 | 20020523 | WO 2001-CA1586 | 20011114 |
| WO 2002039977 | A3 | 20021031 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2002094959 | A1 | 20020718 | US 2001-55493 | 20011029 |
| AU 2002018081 | A5 | 20020527 | AU 2002-18081 | 20011114 |
| EP 1339393 | A2 | 20030903 | EP 2001-996361 | 20011114 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| PRIORITY APPLN. INFO.: | | | US 2000-248228P | P 20001115 |
| | | | US 2000-248570P | P 20001116 |
| | | | US 2001-55493 | A 20011029 |
| | | | WO 2001-CA1586 | W 20011114 |

AB The present invention relates to a method for treating damaged or
degenerated **fat pads** in a **foot** of a
host in need thereof. The method comprises the step of injecting
into the fat pad of the host a biocompatible solution having

physicochem. and mech. properties substantially similar to a fatty acid mixture normally present in a healthy fat pad. For example, fatty acids, myristate 1.9%, **palmitate** 15.9%, stearate 1.7%, palmitoleate 12.3%, vaccenate 4.8%, oleate 46.4% and linoleate 17.0% (weight/weight) were combined in an amber glass bottle, warmed to 65°, and mixed using a magnetic stir plate. The mixture was sterilized by filtration and dispensed in aseptic conditions, by 5 mL aliquots, in amber glass vials, to avoid photooxidn. Each vial, stored at or below room temperature, can be used by first warming it up slightly above the m.p. of the mixture (37-40°). The liquified solution is then drawn from the vial with a syringe fitted with a fine needle (26G). The plantar surface of the patient's foot is washed with soap, rinsed with water, dried, and prepared with 70% iso-Pr alc. and a sterile gauze wipe. The site of injection can first be anesthetized, and then injected within the atrophic fat pad, at about 1 cm below the surface of the skin. For the heel site, this injection site is directly above the calcaneus, where heel spur normally develops. The clinician can feel the increased resistance in the syringe as the fat pad becomes refilled.

IT 57-10-3, **Palmitic acid**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(injection of biocompatible fatty acids mixture for restoring
fat-pad in foot)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO' ENTERED AT 14:53:21 ON 03 FEB 2004)

L11 1 S L10

L11 ANSWER 1 OF 1 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-519362 [55] WPIDS

DOC. NO. CPI: C2002-146945

TITLE: Treatment of damaged or degenerated fat pads
comprises injection of biocompatible solution
similar to fatty acid mixture normally present in
the healthy fat pad.

DERWENT CLASS: A96 B05

INVENTOR(S): DESROSIERS, E A

PATENT ASSIGNEE(S): (DESR-I) DESROSIERS E A; (BIOS-N) BIO SYNTECH
CANADA INC

COUNTRY COUNT: 99

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2002039977 | A2 | 20020523 | (200255)* | EN | 38 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC | | | | | |
| MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW | | | | | |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ | | | | | |
| DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP | | | | | |
| KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ | | | | | |
| NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA | | | | | |
| UG US UZ VN YU ZA ZW | | | | | |
| US 2002094959 | A1 | 20020718 | (200255) | | |
| AU 2002018081 | A | 20020527 | (200261) | | |
| EP 1339393 | A2 | 20030903 | (200365) | EN | |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK | | | | | |
| NL PT RO SE SI TR | | | | | |

10/055493

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|----------------|-----------------|----------|
| WO 2002039977 | A2 | WO 2001-CA1586 | 20011114 |
| US 2002094959 | A1 Provisional | US 2000-248228P | 20001115 |
| | Provisional | US 2000-248570P | 20001116 |
| | | US 2001-55493 | 20011029 |
| AU 2002018081 | A | AU 2002-18081 | 20011114 |
| EP 1339393 | A2 | EP 2001-996361 | 20011114 |
| | | WO 2001-CA1586 | 20011114 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---------------|-------------|---------------|
| AU 2002018081 | A Based on | WO 2002039977 |
| EP 1339393 | A2 Based on | WO 2002039977 |

PRIORITY APPLN. INFO: US 2001-55493 20011029; US 2000-248228P
20001115; US 2000-248570P 20001116

AN 2002-519362 [55] WPIDS

AB WO 200239977 A UPAB: 20020829

NOVELTY - Treatment of damaged or degenerated fat pads involves injecting into the pad a biocompatible solution with an intrinsic viscosity above 5 mPa.s at physiological temperature, substantially similar to a fatty acid mixture which is normally present in the healthy fat pad.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the use of the biocompatible solution in the manufacture of a medicament for treatment of damaged or degenerated fat pads.

ACTIVITY - Analgesic.

MECHANISM OF ACTION - None given.

USE - In the treatment of damaged or degenerated **fat pad** of a host located in the sub-calcaneal, outside arch or metatarsal of a **foot** (claimed).

ADVANTAGE - The thickness of the damaged or degenerated fat-pad is restored and consequently their cushioning function. Also the solution is injectable, non-toxic, biocompatible and have a sufficiently long residence time in the pad providing a safe and long lasting effect.

Dwg.0/3

FILE 'HCAPLUS' ENTERED AT 14:54:14 ON 03 FEB 2004

L12 113 S L9 AND (?FOOT OR FEET)

L13 1 S L12 AND FAT PAD

L14 0 S L13 NOT L10

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 14:55:20 ON 03 FEB 2004

L15 2 S L13

L16 1 S L15 NOT L11

L16 ANSWER 1 OF 1 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 93281488 EMBASE

DOCUMENT NUMBER: 1993281488

TITLE: Fatty acid composition of normal and atrophied heel

Searcher : Shears 571-272-2528

10/055493

fat pad.
AUTHOR: Buschmann W.R.; Hudgins L.C.; Kummer F.; Desai P.; Jahss M.H.
CORPORATE SOURCE: Department of Orthopaedic Surgery, Bronx Lebanon Hospital Center, 1650 Selwyn Ave., Bronx, NY 10457, United States
SOURCE: Foot and Ankle, (1993) 14/7 (389-394).
ISSN: 0198-0211 CODEN: FANKDJ
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
033 Orthopedic Surgery
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Capillary gas-liquid chromatography was used to analyze the fatty acid composition of normal heel **fat pads** from subjects without systemic disease (N = 8) and atrophied heels from patients with diabetic peripheral neuropathy (N = 4), rheumatoid arthritis (N = 1), peripheral vascular disease (N = 1), and hereditary sensory neuropathy (N = 1). In the normal subjects, the fatty acid composition of subcutaneous abdominal fat was also obtained for comparison. Three saturated fatty acids (myristate, **palmitate**, and stearate) and four unsaturated fatty acids (palmitoleate, oleate, vaccenate, and linoleate) comprised over 90% of the total fatty acid composition. Higher percentages of unsaturated fatty acids and lower percentages of saturated fatty acids were found in the normal heel **fat pads** when compared to subcutaneous abdominal fat. The increase in the ratio of unsaturated fatty acids to saturated fatty acids (4.4 versus 2.5, $P < .01$) may decrease triglyceride viscosity and enhance the biomechanical efficiency of the heel **fat pad**. Though the number of patients is small, no statistically significant compositional differences were noted between the heel fat from normal subjects and from subjects with peripheral neuropathies, rheumatoid arthritis, or peripheral vascular disease. However, the heel fatty acid composition of the one subject with a hereditary sensory neuropathy was less unsaturated and more saturated than normal with a ratio of unsaturates to saturates similar to that of the abdomen (2.8).

FILE 'HCAPLUS' ENTERED AT 14:55:56 ON 03 FEB 2004

L17 2 S FAT PAD(S) (?FOOT OR FEET)

L18 1 S L17 NOT L10

L18 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1972:95232 HCAPLUS

DOCUMENT NUMBER: 76:95232

TITLE: Induction of edema in the adrenalectomized rat by D-galactosamine. Mechanism of action of galactosamine

AUTHOR(S): Reutter, W.; Hassels, B.; Lesch, R.

CORPORATE SOURCE: Biochem. Inst., Univ. Freiburg, Freiburg/Br., Fed. Rep. Ger.

SOURCE: Naturwissenschaften (1971), 58(11), 576
CODEN: NATWAY; ISSN: 0028-1042

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Adrenalectomized rats given a single dose of D-galactosamine (I)

Searcher : Shears 571-272-2528

10/055493

[7535-00-4] (375 mg I-HCl/kg, i.p.) developed excessive edema in the s.c. tissue, especially in the ears, **feet**, and nose, abdominal cavity edema in the mesenterial **fat pads**, and enhanced ascites production. The induction of edema was accompanied by a fall in plasma protein to .sim.60% of normal values. Glucocorticoids prevented the formation of edema.

IT Proteins
RL: BIOL (Biological study)
(blood-plasma, in galactosamine-induced edema)
IT Adrenalectomy
(edema from galactosamine in)
IT Edema
(from galactosamine, after adrenalectomy)
IT 7535-00-4
RL: PRP (Properties)
(edema from, in adrenalectomy)

~~FILE 'HCAPLUS' ENTERED AT 14:55:56 ON 03 FEB 2004~~

~~L17 2 S FAT PAD(S) (?FOOT OR FEET)~~
~~L18 1 S L17 NOT L10~~

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO' ENTERED AT 14:56:39 ON 03 FEB 2004

L17 2 SEA FILE=HCAPLUS ABB=ON PLU=ON FAT PAD(S) (?FOOT OR
FEET)

L19 91 SEA L17

L20 5 SEA L19(S) (DAMAG? OR DEGENERAT? OR DE GENERAT? OR
RESTOR?)

L21 4 L20 NOT (L11 OR L16)

=> dup rem l21

PROCESSING COMPLETED FOR L21

L22 4 DUP REM L21 (0 DUPLICATES REMOVED)

L22 ANSWER 1 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS
RESERVED. on STN

ACCESSION NUMBER: 2001258964 EMBASE

TITLE: Metatarsal head preservation in forefoot arthroplasty
and the correction of severe claw toe deformity.

AUTHOR: Briggs P.J.; Stainsby G.D.

CORPORATE SOURCE: Dr. P.J. Briggs, Consultant Orthopoedic Surgeon, 34
Chollerford Close, Newcastle upon Tyne NE3 4RN,
United Kingdom. peterjbriggs@btinternet.com

SOURCE: Foot and Ankle Surgery, (2001) 7/2 (93-101).
Refs: 42

ISSN: 1268-7731 CODEN: FASUF8

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 033 Orthopedic Surgery

LANGUAGE: English

SUMMARY LANGUAGE: English

AB A surgical technique is described that replaces and maintains the
position of the metatarsophalangeal joint plantar plate and
forefoot fat pad underneath the
metatarsal heads in the correction of severe claw toes and in
forefoot arthroplasty. Sixty-nine **feet** in 52

Searcher : Shears 571-272-2528

patients after single lesser toe correction and 41 **feet** in 29 patients after multiple toe correction were reviewed between 1 and 11 years following surgery. Most patients undergoing multiple toe correction suffered rheumatoid arthritis. Following single toe surgery, patient satisfaction was good or excellent in 83% with complete relief of pain in 80% of patients. Recurrent toe deformity was associated with the development of deformity in an adjacent toe. Following multiple toe surgery, patient satisfaction was good or excellent in 93% with complete relief of pain in 93%. The need for chiropody skin care, insoles and surgical shoes was reduced. Metatarsalgia associated with claw toe deformity is relieved by reducing the downward force on the metatarsal head and by **restoring** the weight-bearing function of the **forefoot fat pad**. Its position is governed by the length of the plantar aponeurosis and so the importance of preserving the metatarsal heads and metatarsal length is emphasized.

L22 ANSWER 2 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
 ACCESSION NUMBER: 1999407269 EMBASE
 TITLE: Subtalar arthrodesis with correction of deformity after fractures of the os calcis.
 AUTHOR: Marti R.K.; De Heus J.A.C.; Roolker W.; Poolman R.W.; Besselaar P.P.
 CORPORATE SOURCE: Dr. W. Roolker, Department of Orthopaedics-G4, University of Amsterdam, Meibergdreef 9, 1105 AZ Amsterdam, Netherlands
 SOURCE: Journal of Bone and Joint Surgery - Series B, (1999) 81/4 (611-616).
 Refs: 27
 ISSN: 0301-620X CODEN: JBSUAK
 COUNTRY: United Kingdom
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 014 Radiology
 033 Orthopedic Surgery
 LANGUAGE: English
 SUMMARY LANGUAGE: English

AB We have reviewed the long-term results of 22 patients (23 fusions) with fractures of the os calcis, who had subtalar arthrodesis with correction of the deformity between 1975 and 1991. The mean follow-up was nine years (5 to 20). All patients were evaluated according to a modified **foot** score. A radiological assessment was used in which linear and angular variables were measured including the fibulocalcaneal abutment, the height of the heel and **fat pad**, the angle of the arch and the lateral talocalcaneal and the lateral talar declination angles. The technique used **restores** the normal relationship between the **hindfoot** and **midfoot** and corrects the height of the heel. This leads to better biomechanical balance of the neighbouring joints and gives a favourable clinical outcome. The modified **foot** score showed a good or excellent result in 51% of the **feet**. Residual complaints were mostly due to problems with the soft tissues. Subjectively, an excellent or good score was achieved in 78% of the cases. After statistical analysis, except for the height of the heel and the **degenerative** changes in the calcaneocuboid joint, no significant difference was found in the measured variables between the operated and the

contralateral side.

L22 ANSWER 3 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS
RESERVED. on STN
ACCESSION NUMBER: 90275204 EMBASE
DOCUMENT NUMBER: 1990275204
TITLE: Neuromas of the heel.
AUTHOR: Davidson M.R.; Copoloff J.A.
CORPORATE SOURCE: California College of Podiatric Medicine, San
Francisco, CA, United States
SOURCE: Clinics in Podiatric Medicine and Surgery, (1990) 7/2
(271-288).
ISSN: 0891-8422 CODEN: CPSUEB
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 008 Neurology and Neurosurgery
033 Orthopedic Surgery
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Homo sapiens evolved **barefoot** on grassy plains, forest
floors, and sandy beaches. Prehistoric man sat on his haunches all
day and for a few hours would hunt for food. Later he would return
to his campsite and squat for the rest of the day by the fire
performing tribal rituals, repairing and fabricating weapons, and
celebrating the day's catch. Today, civilized people spend most of
their waking hours working in unnatural environments of unyielding
surfaces with unnatural footwear. With the evolution of civilization
came the evolution of heel pain. Health care providers, for the most
part, have been unsuccessful in treating chronic heel pain. In this
article, we hope to dispel some of the myths surrounding heel pain
and spark a new understanding of the cause of this painful
foot problem which has plagued man since the dawn of
civilized society. Heel pain accounts for a majority of all adult
foot complaints among the world's population. A number of
different entities may cause heel pain. The less common etiologies
may be gonococcal, diabetes, gout, and the various types of
arthritis. The most common cause of heel pain seen in the world
today in adults, however, may be attributed to the chronic
microtrauma of heel strike in walking or running. This repeated
microtrauma ultimately leads to **damage** of the calcaneal
fat pad and injury to the neural and vascular
components in the heel.

L22 ANSWER 4 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS
RESERVED. on STN
ACCESSION NUMBER: 83158703 EMBASE
DOCUMENT NUMBER: 1983158703
TITLE: Metatarsal head resection in the treatment of the
rheumatoid forefoot.
AUTHOR: Goldie I.; Bremell T.; Althoff B.; Irstam L.
CORPORATE SOURCE: Dep. Orthop. Surg., Karolinska Sjukhuset, S 10064
Stockholm, Sweden
SOURCE: Scandinavian Journal of Rheumatology, (1983) 12/2
(106-112).
CODEN: SJRHAT
COUNTRY: Sweden
DOCUMENT TYPE: Journal
FILE SEGMENT: 031 Arthritis and Rheumatism

10/055493

033 Orthopedic Surgery
051 Leprosy and other Mycobacterial Diseases

LANGUAGE: English

AB When conservative treatment in the management of the painful rheumatoid **forefoot** fails, surgery should be advocated. The aim is to relieve the sole from pressure on the metatarsal heads, which causes callosities on and pain in the **forefoot**. Various surgical procedures have been described, but they have in common to replace or remove the **fat pad** under the metatarsal phalangeal joints, to resect the metatarsal heads and, in doing this, **restore** the metatarsal ends to a flat arc. For if the intermediate metatarsals are left too long, new pressure points may develop, with ensuing pain. In this investigation a 4 1/2-year follow-up is presented of 32 patients operated on with metatarsal head resection in 59 **feet**. Twenty-two patients representing 39 **feet** were very satisfied, whereas 8 patients representing 15 **feet** were dissatisfied. Walking ability improved considerably; standing on toes improved; muscle power of toes improved. Despite attempting to maintain the metatarsal arc as a flat curve, this proved to be uneven in 25 **feet**, but did not jeopardize the results. The complications were minor and did not influence the final results. These, however, were decidedly influenced by the functional class of the patient at the time of investigation. Surgical management of the painful rheumatoid **forefoot** appears to be a recommendable procedure.

FILE 'HOME' ENTERED AT 14:58:22 ON 03 FEB 2004